

Benha University

Faculty of Engineering- Shoubra

CCE Communication and Computer program

CCE303 Algorithms and Data-structure

## Assignment

- **The answer should be printed with the output.**
  - **Answer should be unique, any similarity in the solutions will be considered zero.**
  - **Assignment is due 19-Dec 11:59 PM.**
1. Write a function that takes two sorted lists, and merges the two together into one list. Function should return the new list. The new list should be made by splicing together the nodes of the first two lists. What is the complexity of your algorithm?
  2. Implement selection sort using recursion instead of nested loops.
  3. Consider the following class for a Tree Node:  
Class Node{  
int data;  
Node Left;  
Node Right;  
}  
Write a java function count(Node R, int N) that counts the nodes under Node R with value less than N;